

Patent  
Serial No. 10/540,685  
Amendment in Reply to Final Office Action of August 17, 2006

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An optical device comprising: a polymer film comprising a first surface and a second surface, a first electrode mapped on said first surface, a second electrode mapped on said second surface, a deformable optical element mapped on said first electrode or on said first surface, wherein said deformable optical element is configured to deform substantially along at least one of a direction radial to an optical axis of said deformable optical element and a plane parallel to said polymer film by ~~said first electrode or said first surface on which the deformable optical element is mapped substantially along at least one of a direction radial to an optical axis of said deformable optical element and a plane parallel to said polymer film increasing a length of the polymer film substantially along the direction radial to the optical axis.~~

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2. (Previously Presented) The optical device as claimed in claim 1, wherein said optical element is a circular lens or a diffraction grating.

3. (Previously Presented) The optical device as claimed in claim 1 or 2, wherein said optical element is made of silicone rubber or of cyclic olefin copolymer.

4. (Previously Presented) The optical device as claimed in claim 1, wherein said polymer film is made of silicone rubber or acrylic dielectric elastomer.

5. (Previously Presented) The optical device as claimed in claim 1, wherein said first electrode and said second electrode have the shape of a circle.

6. (Previously Presented) The optical device as claimed in claim 1, wherein said first electrode and said second electrode have the shape of a ring.

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7. (Currently Amended) An optical device comprising:

a polymer film;

a plurality of electrodes; and

an optical element in contact with the polymer film or at least one of said plurality of electrodes;

the polymer film being sandwiched between the two electrodes and configured to receive a voltage difference, for deforming the optical element, wherein the deformable optical element is further configured to deform substantially along at least one of a direction radial to an optical axis of the deformable optical element and a plane parallel to the polymer film by deforming said first electrode or said first surface on which the deformable optical element is mapped substantially along at least one of a direction radial to an optical axis of said deformable optical element and a plane parallel to said polymer film increasing a length of the polymer film substantially along the direction radial to the optical axis.

8. (Currently Amended) A method of changing the optical

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characteristics of an optical element, said method comprising the acts of:

mapping a first electrode on a first surface of a polymer film,

mapping a second electrode on a second surface of said polymer film,

mapping said optical element on-on said first electrode ~~or~~ or on said first surface, and

applying a voltage difference between said first electrode and said second electrode,

wherein, in response to said applying act, said optical element is configured to deform substantially along at least one of a direction radial to an optical axis of said optical element and a plane parallel to said polymer film by deforming said first electrode or said first surface on which the deformable optical element is mapped substantially along at least one of a direction radial to an optical axis of said deformable optical element and a plane parallel to said polymer film increasing a length of said polymer film substantially along the direction radial to the optical axis.